

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
9 September 2005 (09.09.2005)

PCT

(10) International Publication Number  
**WO 2005/081614 A2**

(51) International Patent Classification: **Not classified**

(21) International Application Number:  
PCT/EP2005/002158

(22) International Filing Date: 25 February 2005 (25.02.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
10 2004 009 869.7  
26 February 2004 (26.02.2004) DE

(71) Applicant (for all designated States except US): **REINZ-DICHTUNGS-GMBH** [DE/DE]; Reinzstrasse 3, 89233 Neu-Ulm (DE).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **STRÖBEL, Raimund** [DE/DE]; Gartenstrasse 15, 89077 Ulm (DE). **QUICK, Lothar** [DE/DE]; Hauptstrasse 44, 89278 Nersingen (DE). **SCHERER, Joachim** [DE/DE]; Sachsenweg 67, 89075 Ulm (DE). **GAUGLER, Bernd** [DE/DE]; Kohlgrasse 15, 89075 Ulm (DE). **SCHLEIER,**

Christian [DE/DE]; Wasserburger Weg 123, 89312 Günzburg (DE). **GRAFL, Dieter** [DE/DE]; Maienweg 164, 89081 Ulm (DE).

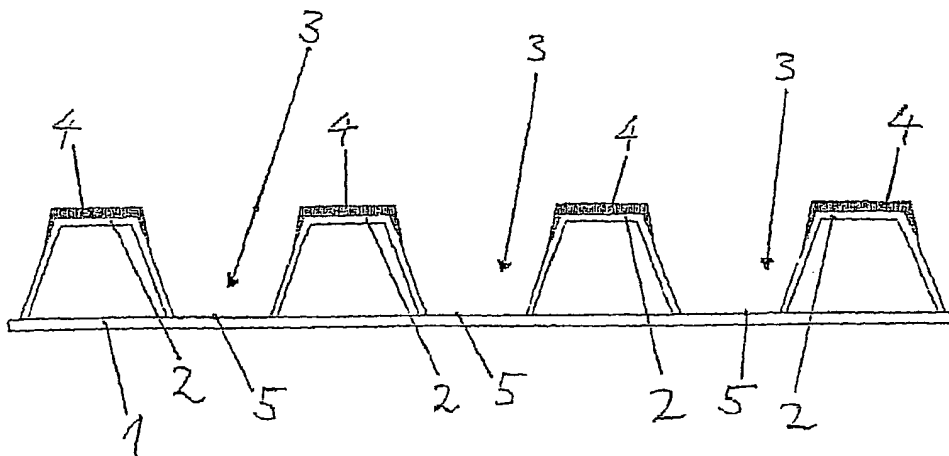
(74) Agent: **PFENNING, MEINIG & PARTNER GbR**; Joachimstaler Str. 10-12, 10719 Berlin (DE).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: CONTACT PLATE FOR FUEL CELLS



(57) Abstract: The present invention relates to a contact plate for fuel cells with a coherent active area (11) on at least one side of the contact plate, wherein the active area (11) consists of a contact surface (2) which over the whole surface comprises a coating (4) of an electrically conductive, corrosion-resistant material, and of recesses (3) so that the recesses (3) form a channel structure, wherein the coating (4) furthermore at least in the bottom regions (5) of the recesses (3) is omitted. The invention further relates to a corresponding fuel cell or to a fuel cell stack with at least one such contact plate as well as to various methods for manufacturing such contact plates which may serve as bipolar plates as well as monopolar plates or end plates. With the contact plate according to the invention, one achieves an optimally reduced contact resistance with a minimal material expense for the coating (4).

WO 2005/081614 A2

BEST AVAILABLE COPY

GnD



**Published:**

— without international search report and to be republished  
upon receipt of that report

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*